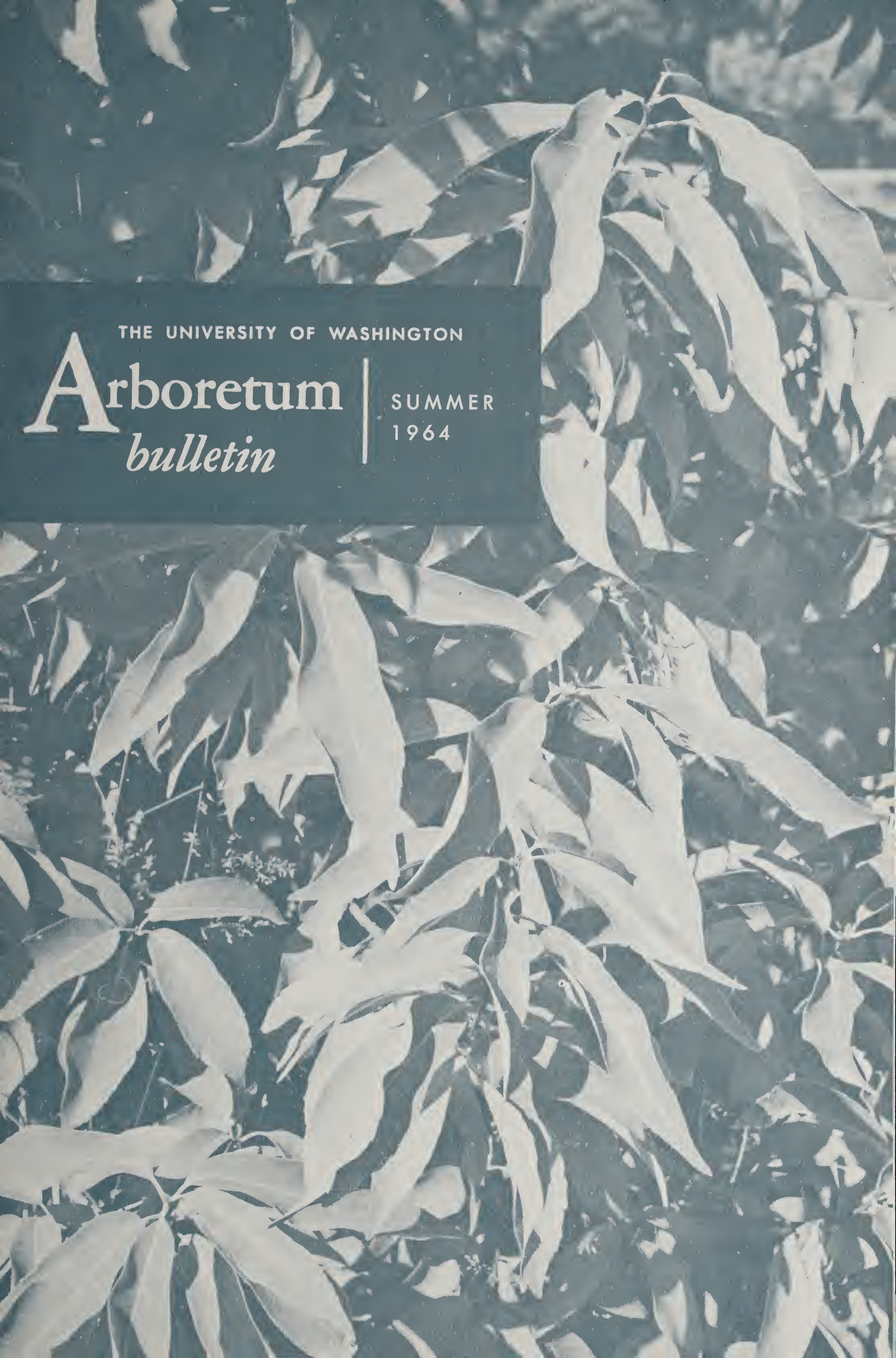


THE UNIVERSITY OF WASHINGTON

Arboretum *bulletin*

SUMMER 1964

In Seattle...1 out of every 3 people
Save with Washington Mutual

MAIN OFFICE:
SECOND AT SPRING
SEATTLE,
WASHINGTON

WASHINGTON MUTUAL SAVINGS BANK

Northwest's Oldest and Largest Savings Institution

TOTAL ASSETS OVER $348,000,000 • MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

BRANCHES: AURORA VILLAGE, BALLARD, BELLEVUE, RENTON, TIMES SQUARE, UNIVERSITY, WEST SEATTLE, WHITE CENTER

THE UNIVERSITY OF WASHINGTON

Arboretum bulletin

A JOURNAL OF GENERAL HORTICULTURAL INFORMATION
PUBLISHED QUARTERLY BY THE UNIVERSITY OF WASHINGTON
ARBORETUM FOUNDATION • SEATTLE 5, WASHINGTON

No part of this BULLETIN may be reprinted without the authority of the Arboretum Foundation.

VOLUME XXVII, NUMBER 2

Summer, 1964

TABLE OF CONTENTS

My Garden Is for the Birds . . . . . Pat Ballard 30

Leaves from the University of Washington Arboretum—
The Naming of Plants—Part II . . . . . Arthur R. Kruckeberg 33

Around the Seasons in Our Garden . . . . . Mrs. Allen B. Engle 37

Research and the Arboretum . . . . . J. A. Witt 39

Recommended Magnolias for a Beginner's Garden . . . . . R. Todd Gresham 40

An Amateur Looks at Rhododendron Seedlings . . . . . Herbert G. Ihrig 42

New or Unusual Plants in the Arboretum . . . . . J. A. Witt 43

New Members 45

Some of Our Favorites 46

Book Review 46

Cover Photo:
Quercus glabra

My Garden Is for the Birds

PAT BALLARD*

MY long-suffering husband has maintained that gardening, at Funnybrook Farm, is strictly for the birds and I would have to agree. When we moved to the country bird-watching was much more interesting than gardening. Our first little summer shack was built in a treeless pasture and every blackberry bush was dear to me.

Birds have three basic needs — food, water, and protection. Without the last of these they cannot be lured to partake of the first two. Hot words have sounded over the destruction of any kind of cover. At long last, peace is being maintained by compromise. I do not stand in the way of any grubbing out of blackberries, south of the lane, but woe betide the individual who threatens that gorgeous bramble patch to the north. Summer or winter it is full of year-round residents or spring and autumn migrants. It is from there that the golden-crowned sparrow sings "Three Blind Mice," in a minor key, as he rests before his long flight to British Columbia or Alaska. Juncos, towhees, song sparrows, white-crowned sparrows, purple and house finches, winter and Bewick wrens — all of these feel secure in that prickly haven.

Two of our plantings are basically for bird protection. One is a "living fence" of *Rosa multiflora* that is three hundred feet long, eight feet tall, and ten to twelve through. Its criss-crossing branches form a thicket that is home for many different kinds of birds. Its generous crop of small fruits feeds them throughout the winter, and the pheasants travel up and down in the protection of the thorny tangle. The last time we had snow (for more than a day or two) five western bluebirds moved in for the duration of the storm.

Mahonia Aquifolium has much to recommend it. A nine to ten-foot hedge is a thing of beauty for human eyes and a place of feasting for the birds, when the fruits are ripe. Thrushes, robins, cedar waxwings, purple and house finches, western tanagers, black-headed and evening grosbeaks flock to the banquet. As I am writing this, hummingbirds are sipping nectar from the yellow flowers. Year-round it offers protection from the dangers that threaten. Feeding birds exploded into it when a hawk flew in, a few minutes ago.

Pyracantha fruits attract many birds. *P. coccinea,* espaliered against our west wall, is visited by the usual fruit-eaters but we had an especial dividend last fall, when Oregon ruffed grouse sat on our windowsills while they ate the orange-red pomes.

Berberis shrubs offer a safe hide-out into which birds may dive, should a predator come along. *B. triacanthophora* grows beside one of our larger feeders.

Maple seeds are eaten by evening grosbeaks. We have old trees of *Acer macrophyllum* in woodland areas and have transplanted many of the vine maples *(A. circinatum)* into the garden. Now there are seedlings of *A. glabrum* in the lath beds and, in another year or so, they will be moved into shrub borders.

Native alders *(Alnus rubra* and *A. sinuata)* provide food for the birds. Pine siskins are very fond of alder seeds and can be seen hanging upside-down and every-which-way as they remove the seeds from the tiny cones.

Salal *(Gaultheria Shallon)* provides cover as well as food. Four oriental gaultherias are exceptionally fine groundcovers for Northwest gardens and their fruits are so well liked by the birds that we have difficulty saving any seeds for planting. *G. adenothrix* has holly-red fruits, and those of *G. cuneata, G. Itoana,* and *G. Miqueliana* are white. *G. sinensis* is less common but its delphinium-blue fruits are also eaten by the birds.

Cascara *(Rhamnus Purshiana),* madrona *(Arbutus Menziesii)* and western dogwood

*A valuable contribution to our pages on what local birds enjoy, from one of our most faithful authors and Editorial Board Members, Mrs. Page H. Ballard.

(Cornus Nuttallii) bring clouds of robins, band-tailed pigeons, evening and black-headed grosbeaks, russet-backed thrushes, western tanagers, ruffed grouse, pileated woodpeckers, and others.

Viburnums, of all kinds, provide food for the birds. We have been trying to find a plant of *V. pauciflorum,* ever since we saw one of these western natives bouncing with feathered feasters, in a Vancouver Island Provincial Park.

Cotoneaster Dammeri (C. humifusa), that unbeatable, all-purpose groundcover, gives some protection to the sparrows, juncos, and other groundlings and provides food for those that enjoy its bright red fruits. *C. Simonsii, C. Henryi,* and *C. bullata* hold their fruits most of the winter, unless there is a shortage of other fruits. This year last fall's fruits of *C. Simonsii* were eaten but the other two still have some left.

Some gardeners say that a generous planting of native brambles — salmonberry *(Rubus spectabilis),* thimbleberry *(R. parviflorus)* and wild blackcaps *(R. leucodermis)* — will keep the birds away from raspberries and boysenberries. The theory is that the birds prefer the native fruits to our domesticated varieties. There are those who put pans of water among their strawberries, believing that robins will not bother to eat strawberries if there is sufficient water nearby. I will have to admit that I have not tried these fruit-saving methods. I am like the Elizabethan who suggested burning herrings on mole hills; I only report what I have heard.

Ocean spray *(Holodiscus discolor)* offers little sustenance but its arching branches offer nesting sites, particularly for russet-backed thrushes. The elderberries *(Sambucus cerulea* and *S. callicarpa)* are beautiful in the wild. We let the latter red-berried species grow in the woods and enjoy the birds that come to feed. The blue-berried species likes an open situation and doesn't grow naturally on our twenty acres. We have a spot waiting for one when we can find a seedling that will accept a change in habitat.

Woodland herbs that have fleshy fruits should be included in the birdwatcher's garden. Solomon's seal *(Polygonatum biflorum),* false solomon's seal *(Smilacina racemosa),* wild lily-of-the-valley *(Maianthemum bifolium)* and bunchberry *(Cornus canadensis)* all produce fruits that are eaten by the birds.

Hedera Helix, the ivy, and its varieties may not be good for chimneys but the juncos have nested in ours, and its handsome black fruits are liked by many birds.

The blueberries *(Vaccinium)* in all their varieties and forms, large and small, deciduous or evergreen, should be in our gardens. *V. Vitis-idaea,* an indispensable groundcover, is a must. The native species of *Vaccinium* are enjoyed by cedar waxwings, red-shafted flickers, russet-backed thrushes, California quails, robins, bluebirds, and ring-necked pheasants.

Hummingbirds are particularly fond of trumpet-shaped flowers. If they are red, that is perfection. But hummers will dip their long beaks into white or pink weigela, pink or yellow flowering currant, *(Ribes sanguineum* and *R. aureum),* yellow, orange, pink, or white honeysuckles *(Lonicera* in variety), pink or white flowering cherry blossoms, clematis, hollyhocks, roses, and nasturtiums.

Pine siskins eat the seeds of herbaceous weeds, as well as those of pines and alders. They build their neat, cuplike nest in conifers. Bush tits hang their socklike home from the branches of conifers or deciduous trees or shrubs. Kinglets, both the ruby-crowned and golden-crowned, usually nest in coniferous woods. They do not feed on fruits or seeds but they are invaluable collectors of wasps, bugs, flies, beetles, plant lice, and insect eggs. During the winter months black-capped and chestnut-backed chickadees subsist upon the eggs of plant lice, moths, and spiders. During the summer they eat moths, caterpillars, beetles (particularly weevils), flies, scale insects, leafhoppers, and other pests. We put out suet, peanut butter, and sunflower seeds to keep them around our garden.

Swallows cannot be attracted by food or

plantings but we offer them properly constructed nesting boxes, so we may enjoy their services in destroying flying insects.

Mountain ash trees and shrubs *(Sorbus* in variety) will bring many kinds of birds to the garden. We have collected *S. sitchensis* in the Cascades and it is planted in our "bird border." In this same border we have planted more than fifty *Rosa rugosa alba* plants, and, among them, have put the wayfaring trees *(Viburnum Lantana),* the cornelian cherry *(Cornus mas),* serviceberry *(Amelanchier florida),* flowering currant *(Ribes sanguineum,)* Japanese quince *(Chaenomeles japonica), Cotoneaster Simonsii,* and Indian plum *(Osmaronia cerasiformis).* We are planning to add the white and pink-fruited *Sorbus Prattii* and *S. discolor* and the copper-fruited ally of *S. latifolia.* We have grown these from seed so we expect to have variations from the type but the fruits should be acceptable to our feathered guests.

Our ancient apple orchard is a great boon to the birds. It offers them nesting places and food. The moss-covered trees would break the heart of my farming grandfather, but to the bird-lover they are priceless. They produce so much fruit that we do not begrudge the grouse the swelling buds they snap off. We accept their services as nature's means of thinning the fruit. There are always more than we can use and the unpicked apples hang on the trees until the birds have made a clean sweep. Flocks of varied thrushes visit us during the winter and pheasants feed upon the rotting fruits on the ground. We have often wondered if the fermenting fruits have an alcoholic effect on the birds. There was one hen pheasant that behaved in a most unseemly manner after gorging herself. She forgot that her place was on the ground and flew high into the tree, creeping along the branches like a perching bird, to reach a tempting morsel.

Water should be provided for drinking and for bathing. Many birds visit our bird bath but many more species come to the bubbling stream that is motivated by an electric pump. Warblers, in particular, are attracted by the sound of dripping water. When we were here only for weekends, we would hang a leaky bucket from the limb of a tree and let the drops splash into an upturned garbage can lid that sat in an empty barrel. Watering and feeding devices may be as simple or complex as you wish. The birds are not fussy. Our bird bath is a tremendous iron kettle that served as a rendering kettle at the neighborhood slaughterhouse until it was rolled into the weeds to rust its life away. It was rescued by the master of the manor when he took a steer to be butchered. After it had served as a barbecue for several years, it finally came to rest in a shrub border, where it was filled with rocks and sand to keep the water level shallow enough for the tiny bathers. We will never forget the day we watched seven baby western bluebirds splashing away while their mother sat on an overhanging branch of a dwarf oak.

Our largest feeder is more than three feet across and roofed with great wedges of cedar bark. The birdfeeders that are sold at the Arboretum Unit Council's autumn sale are very attractive and practical. The sturdy hardboard, of which they are constructed, never succumbs to our winter rains and there are no nails or screws to fall out. They hold two pounds of wildbird seed and do not require constant refilling. Most of the supermarkets now sell wildbird seed in five-pound bags. We have found that the wholegrain seeds do not mould as readily as the cracked grains. Dried bread, crackers, scraps of cornbread or biscuits are acceptable. Coconut-shell halves may be filled with suet, peanut butter, or seeds and hung out of the rain. We fold half-inch-mesh hardware cloth around great chunks of suet and hang them from tree branches or overhanging eaves. One hangs just outside our living room window and, at this moment, there are three purple finches feeding there. From daybreak to dusk there is almost never a time when it is without finches, song sparrows, juncos, chickadees, flickers, or red-breasted nuthatches. One day

(Continued on Page 48)

Leaves from the University of Washington Arboretum

The Naming of Plants — Part II

ARTHUR R. KRUCKEBERG*

SINCE the first installment of these notes on plant names in the last number of the *Arboretum Bulletin,* I hope that the reader has continued to encounter Latin botanical names and has asked himself questions about them. You might have met a binomial like *Townsendia Rothrockii* and been perplexed at the lack of information content in such a name. Both the generic name and the specific name are latinized personal names; they tell you nothing about the nature of the plant in question. Or, you may have puzzled over a "jawbreaker" like *Eccremocarpus scaber* and wondered how in the world to pronounce it. To resolve some of these questions, we had better confront plant names analytically. We will take a close look at the kinds of names one encounters in botanical literature, the history of the binomial, and some of the rules of pronunciation and grammar.

What variations on plant names do we encounter all within the framework of the binomial? There are essentially four classes of generic and specific names. In the previous paragraph I used the genus name, *Townsendia.* This example of the commemorative epithet honors a little-known eastern amateur botanist, David Townsend. Kings, rogues, botanists, patrons and lovers, all have been eulogized in this way. The addition of "-ia" to a personal name is a sure route to immortality. Just look at these commemoratives: *Linnaea, Kalmia, Lewisia, Kolkwitzia, Magnolia, Jepsonia, Jeffersonia,* and so on through the floras of the world! *Linnaea,* the delightful trailing twin-flower, is named for Carolus Linnaeus, the father of systematic botany. *Kalmia,* the mountain laurel, is named for one of Linnaeus' students, Peter Kalm. You would be certain to recognize that *Lewisia* is named for Meriwether Lewis of the Lewis and Clark expedition. William Clark is commemorated in the genus *Clarkia,* a delightful group of annuals so common in the spring floras of the Pacific Coast.

A more academic class of generic epithets is the classical descriptive name. Here, Greek or Latin, or sometimes a mismatch of both ancient tongues, are used to depict some characteristic of the genus in question. Thus the genus *Liriodendron* is translated from the classic language as "lily tree"; *Xanthorhiza* means "yellow root"; *Oxydendron* means "sour tree"; *Cladothamnus* means "branched shrub"; *Enkianthus* means "pregnant flower"; etc. Occasionally, generic names have been derived from the original native word. A botanist in the tropics would find that many of the genera he finds there are latinized versions of the original native name. Two examples from the Asiatic flora are *Tsuga,* which is the Japanese name for hemlock, and *Ginkgo,* the Chinese name for that famous and sacred tree of temple gardens*. The last category of generic names is both an amusing and intriguing one — the so-called fanciful, poetical, or mythological name. Here are four names which typify this kind of generic epithet. *Dodocatheon* means "twelve gods"; *Theobroma,* the generic name for the cocoa plant, means "god's food"; *Phyllodoce, Calypso* and *Narcissus* are characters in Greek mythology. Now test yourself. Pick up any book which abounds in botanical names and see if you can identify various kinds of generic names just outlined. You should be able to pick out commemorative, classical, or latinized native names, and even some of the fanciful names or those that have mythological allusion.

Of the four categories of species names, the descriptive and commemorative groups of names are the commonest. Such simple descriptive adjectives as *rubra* (red), *nana* (dwarf), *repens* (prostrate growth), *saxatilis*

*Professor of Botany, University of Washington, and member of our Editorial Board.

*For more details on the word *Ginkgo* and its origin see Dr. H. L. Li, — *Origin and Cultivation of Shade and Ornamental Trees,* pp. 106-111, (Univ. of Pa. Press, 1963).

(growing in rocks), etc. are ubiquitous examples. Sometimes the descriptive adjective is compound, as in *angustifolia* ("narrow" and "leaf"), *cordifolia* ("heart-shaped leaf"), *racemiflora,* (flowers in a racemose inflorescence). Occasionally, a specific name is taken from the generic name in another group—thus we find the specific name *bignonioides,* which means "like bignonia," or *acerifolia* ("leaves like a maple"). A great many of the more recent specific epithets are simply commemorative, quite like the situation in commemorative generic names. Thus, you would find on any page of Rehder's *Manual of Cultivated Trees and Shrubs,* plants with proper names as the specific epithet, such as *Thunbergii, Wilsonii, Kerneri, Greyana, Forrestii, Mildredae.* Parenthetically, I should mention that, whereas in the past commemorative specific names have been capitalized, the current recommendation of the International Rules is to decapitalize both commemorative and place names. It is largely left to the discretion of the user as to whether he capitalizes or decapitalizes such names. The last group consists of species names which indeed are nouns. In the binomials, *Pyrus Malus* and *Prunus Laurocerasus,* the specific epithets are nouns. Usually such names were formerly generic; thus the species in question which was once placed in another genus now uses the former genus name as a specific epithet.

The inquisitive reader may wonder about the meaning of specific epithets. A number of references can satisfy curiosity on this score. I have before me a book by H. I. Featherley called *The Taxonomic Terminology of Higher Plants.** The latter portion of this book contains a list of common specific epithets and their meanings. Old subscribers to the ARBORETUM BULLETIN will recall that for several years a continuing series of lists of such names and their meanings appeared regularly in THE BULLETIN. These lists are particularly fascinating because many of those used almost exclusively in the regal genus *Rhododendron* are transcribed and their meanings given. Another source is the introduction in the first volume of L. H. Bailey's *Cyclopedia of Horticulture.* Part I of the Royal Horticultural Society's *Rhododendron Handbook* (1963) gives the English derivatives for all of the species listed in that volume. The meanings of many generic names can be found towards the end of each generic synopsis in such books as Bailey's *Manual of Cultivated Plants,* Rehder's *Manual of Cultivated Trees and Shrubs,* or, if it is a genus which is quite local in our own flora, the five-volume series on the *Vascular Plants of the Pacific Northwest,* by C. L. Hitchcock, *et al.,* is another source. So curiosity can be satisfied, memory aided and information content increased when you delve into meanings of some of the commoner names encountered in horticultural and botanical literature.

Now for a little history. Somewhere during the course of our high school or college training, most of us were indoctrinated, however fleetingly, with the idea that Latin botanical names and the 18th century Swede, Carolus Linnaeus, are inextricably linked. Indeed, Linnaeus contributed more than anyone else to the codifying, naming and cataloging of the then-known plants of the world. He *is* the father of systematic botany. In 1753, Linnaeus published the all-important work, *Species Plantarum.* This compendium in Latin of all of the known plants of the period serves today as the starting point for botanical nomenclature. Succinct and pithy Latin statements followed the generic name and out in the margin was a single name in italics; at the time this so-called *trivial* name was meant to be a reference or index term for the particular plant in question. The species name of Linnaeus was actually the more lengthy phrase or sentence. I quote such a combination of generic name, the multi-word species name, and the trivial epithet from *Species Plantarum:*

"1. *Plantago* foliis ovatis glabris, nudo scapo tereti, spica flosculis imbricatis..... *major.*" Here you have the generic name, the compound species name and the trivial

*See Bibliography at end of article.

name as it appeared in 1753. What has come down to us in the form of the present binomial is the generic name and the trivial name joined together, that is, *Plantago major*. Thus, the birth of the present-day binomial was somewhat of an unexpected, but blessed, event. Linnaeus' intention was to use the generic name with a polynomial specific name; he wanted *his* specific name to serve as a series of descriptive words by which each species was to be differentiated at a glance from all others in the genus. The Linnaean polynomial species name is roughly equivalent to the diagnosis found in present-day botanical works. A diagnosis is a series of "telescoped" phrases of description, succinctly defining the morphological boundary of the species in question. My only point in dragging you through all of this, though, is to remind you that the binomial—the two words, genus and species—came into being through an accidental coupling of the Linnaean or even pre-Linnaean generic name with the inconspicuous, marginal "trivial" name.

We can do little but skim over the thorny problems of pronunciation and grammar in the forest of botanical names. Strict conformity to the classicist's rules of pronunciation of Latin and Greek names would cause, I am sure, embarrassment among even professional botanists who have used their own or inherited pronunciation for years on end. Europeans tend to pronounce Latin binomials largely as they would have pronounced the Latin that they learned in school. This is not so in the New World. Pronunciation seems to be inherited from teacher to pupil and I can offer no great solace to those who are looking for pat rules to pronunciation. Some taxonomic works, like Jepson's *Flora of California,* show accent marks on generic and specific names. This, of course, is a big help. There is usually little difficulty in dealing with the pronunciation of commemorative names; one simply pronounces the name of the man and adds (in the case of a generic name) "ia," or in the case of a specific name the "ii" or single "i." Thus, one would say *Jónesii,* rather than *Jonésii.* In all other names of Latin or Greek origin, the coward's way out is to pronounce each syllable and hope that the next to the last syllable is the one to accent. There does remain one rather exceptional suffix to specific names, the one called "unlucky" by Dr. C. B. Bradley in his quaint note on accentuation of Latin names given in Jepson's *Flora.* The suffix "-oides" is generally mispronounced as though one were saying such words as ovoid, thyroid and mastoid. "All such tabloids," says Dr. Bradley, "are of modern manufacture and suited to the haste and impatience of our modern life; but '-oides' is a leisurely and dignified mouth-filling trisyllable and has been such at least ever since the Trojan war."* The grammatical rules for binomials apply particularly to the specific epithet. Since these are largely adjectives they must agree grammatically with the generic name. The generic name is always singular in number and either masculine, feminine or neuter. What follows is a sampling of such specific epithets with three case endings.

Masculine	*Feminine*	*Neuter*	*Meaning*
albus	alba	album	white
niger	nigra	nigrum	black
viridis	viridis	viride	green
acer	acris	acre	acid, sharp
japonicus	japonica	japonicum	Japanese
vulgaris	vulgaris	vulgare	common

Commemorative names take the possessive case and thus end in -i or -ii, regardless of the gender of the generic name—if the person honored is a man. Here are some examples: *Baileyi,* one i; *Nuttallii,* two i's; *Jonesii,* two i's. Thus, in most cases such specific epithets of commemorative type end in double "i." A rather rare exception is when the commemorative word ends in "-ey" or "-er"; it is then followed by a single "i"—thus Bailey*i,* Kerner*i* and Rehder*i.* If the honorific refers to a woman, then the proper ending is always "-ae," as in *Edithae, Margeritae, Mildredae,* etc. Here is a cute variation on this immediate theme: If two or more persons are being honored, as two brothers or a man and wife, the ending would be

*See also Reginald Farrer, *English Rock Garden,* vol. 1, Introduction, xxiii (1914).

"-orum"; the plural possessive, as in *Davisiorum*. Gender for generic names varies depending upon the nature of the name; thus, most commemorative genera, such as *Magnolia, Kernera, Jepsonia, Grayia,* end in "a" and are usually feminine. Generic names ending in "-um" are neuter, and those ending in "-us" are usually masculine. A rather odd exception is that for many trees the generic name, although ending in "-us," is considered feminine and therefore would take a correspondingly feminine form of the specific name: Thus *Quercus alba,* rather than *Q. albus; or Pinus monticola,* not *P. monticolus.*

Sometimes the ending gives a clue to the meaning that is intended by the specific epithet. Thus, if the epithet is derived from a geographical name, it is usually adjectival and takes the ending "-ensis," "-anus," "-inus," *Besseya wyomingensis, Iris virginiana, Rubus columbianus,* and *Acer pensylvanicum.* Habitat preference of plants is often indicated by the suffix "-icola," as in *rupicola* or *saxicola,* and *silvicola* — meaning, respectively, "living in the rocks," and "living in the forest." Now is the time to remind my reader that meanings and grammatical equivalents can best be attained by examining some of the source books mentioned at the end of this article.

It is hoped by now that the justification for the binomial, its usages, its pronunciations, its grammatical procedures, etc. are at least incipiently understood by the reader. It should also be apparent, especially if you were to scan a list of binomials in a catalog or a floristic list or a manual of systematic botany that the information content of these binomials is rather minimal. They don't reveal much about the plant they name. But the same gap exists in everyday communication: most names in any language mean very little by themselves but take on meaning when associated with an object. That this is true of botanical nomenclature will become even more apparent when we chuckle over some quaint botanical anagrams. Some practitioners of the art of nomenclature have resorted to twists and inversions of established generic names in order to manufacture more generic names with minimum effort. A good example is the lily family: the old established name of *Allium* (for all onion species) was borrowed to name a closely related group of plants in the California flora; the taxonomist, lacking a generic name, turned *Allium* around to make *Muilla* the generic name for this related group. Here are some more examples of this droll practice: the name of Edwin Palmer is used anagrammatically in the generic name now *Malperia; Psoralea* becomes *Parosela; Filago* becomes *Gifola; Inula* becomes *Luina; Onagra* becomes *Angora; Mitella* becomes *Tellima; Asarum* becomes *Saruma;* there are two anagrams for the genus *Liatris; Trilisa* and *Litrisa.* Cheap erudition to get two names for the price of one! Yet these bits of nonsense are indeed part of the accepted and official lists of generic names.

There is no real need to go into the intricacies and vagaries of the *International Code of Botanical Nomenclature.* This is largely the preserve of the expert and need not bother us here. However, a similar code for cultivated plants is of practical concern to us. The 1961 edition of the *Code for Cultivated Plants,* formulated at a meeting in Cambridge, England, makes early reference to the *International Code of Botanical Nomenclature.* It says "this code, the *International Code of Botanical Nomenclature* ("Botanical Code") governs the use of botanical names in Latin form for both cultivated and wild plants." Whereas the Botanical Code encompasses the entire hierarchy of the taxonomic system, the *Code for Cultivated Plants* works only at three lower levels — the genus, species, and cultivar or variety. Article 3 states: "the aim of the present code is to promote uniformity, accuracy, and fixity in the naming of the agricultural, silvicultural and horticultural cultivars (varieties) which are normally given fancy names such as apple 'Cox's Orange Pippin,' barley 'Balder,' *Juglans regia* 'King' and rose 'Peace.' The common names of genera and species, such as beech for *Fagus,* potato for *Solanum tuberosum,* hollyhock for

(Continued on Page 50)

Around the Seasons in Our Garden

Mrs. Allen B. Engle*

THE Pacific Northwest has its own four seasons, although they are not as definitely delineated as in the Eastern section of this country. We do not have the abrupt changes in weather that occur in the New England States, where winter lays a heavy hand and spring is reluctant to arrive. I recall a few years ago in mid-May crossing the Boston Common, that great public park in the city's center. The giant elms, planted more than a century ago, were just then showing a trace of green. In the Arnold Arboretum the torch azaleas under dogwood trees were but revealing a tinge of color, the masses of Korean lilacs giving promise of splendor to come.

In contrast to the Eastern scene, where winter yields so slowly to the forces of spring, is our mild Northwestern climate. Moderate in all four seasons, we enjoy a summer that is quite literally unsurpassed. By late January or even earlier, Nature looks over her storehouse, bidding bud and leaf steal from winter's repose. Spring does not arrive with the overmastering power that it does elsewhere but creeps in upon the scene, gently as it were. The unmistakable presence of hundreds of small crocus, yellow forsythia and camellias making their first bow, announces that winter is over. A bird's trill, sharp and urgent, is heard one sunny cold morning. We say to ourselves that spring must be here! Ferns with tightly-curled fronds unfold, fat buds appear on lilacs and magnolias, tips of hyacinths emerge from the ground. Spring is surely here, but alas the calendar informs us it is only February. There follow weeks of heavy rains, with occasional warm days, but by April spring has laid down her vari-colored mantle for all to enjoy.

Returning last spring from the South, I could detect that changes had occurred in the garden during a month's absence. Although it was quite dark we were assailed by the indefinable fragrance of *Viburnum Burkwoodii,* a semi-evergreen shrub of delicacy and beauty. The spicy scent of *Daphne Mezereum* was heavy in the air, almost oriental in odor. The next morning it seemed a whole galaxy of color had appeared. The Andromeda *(Pieris japonica)* glistened in the sun, its pearly white clusters like small silver bells. The primulas along the border in gay yellows and cream were audacious and the camellias almost garish in bright rosy-tinted hues. But these gay apostles of spring were only playing the prelude; the melody was to follow as the rhododendrons began to bloom in quick succession.

The first of the very diverse rhododendron family to blossom in our garden is *R. mucronulatum,* its vivid rosy magenta flowers making a brave display on cold days. In early March the hybrid 'Rosa Mundi,' despite cool days and occasionally colder nights, puts in its appearance. The tender petals are sometimes destroyed by frost. A few weeks later there comes a real garden gem, the primrose-colored *R.* 'Diane.' Considered by many to be the finest of all the yellow varieties, it has excellent foliage, its blooms forming compact trusses. From a window in the library one can gain a full view of this planting, which consists of a background of ornamental conifers and the 'Diane,' of which there are four large ones, interspersed with *Osmaronia* and *Leucothoe Fontanesiana (Catesbaei).* These shrubs lend density and stability and even after the blooming period is over the rich greens blend together well. In mid-April we are given another enjoyable sight when the fine, hardy 'Unique' and another member of the same family, 'Mrs. W. C. Slocock,' in rich shades of apricot blended with yellow, brighten the scene. Along the border in front of these rhododendrons are *R. mucronatum (Azalea ledi-*

*A welcome contribution from one of our Editorial Board Members, well versed in the plants growing in gardens around Puget Sound.

folia alba) and 'Pinky Pearce,' both sturdy members of the evergreen azalea family.

Not to be forgotten in this spring medley is the native dogwood *(Cornus Nuttallii)* which presides over a small area devoted to native plant materials, the Oregon azalea *(A. occidentalis),* huckleberry *(Vaccinium ovatum),* the Oregon Grape *(Mahonia Aquifolium).* On or about May Day the shoots of lily-of-the-valley push up through the old leaves of winter. The occasional chatter of birds is heard on early spring mornings, either looking for food or busily building their nests. Thoreau comments in his nature study, "Walden" that a garden without birds is like meat without seasoning. To this all would agree when seeing a blue jay streak across the air like a comet and the small birds disappearing in an instant. Quail, in a neat covey, will sometimes saunter across the lawn. They come uninvited and remain unmolested for they are part of the joy of a garden. The inspiration given us by birds is immeasurable.

There are still other members of the rhododendron genus that are to enliven our spring garden. 'Mrs. G. W. Leak,' gay and flamboyant, comes out in late April as does that magnificent specimen, *Loderi* 'King George.' Its large, flat petals are of a soft shell pink, unbelievably lovely. Another of the large shrubs of the *Loderi* type is 'Faggetter's Favorite' which about May 1st puts in its bright appearance. 'Azor,' a soft salmon pink, then soon follows and 'Blue Diamond,' a cerulean blue, gives a rare touch of contrast in the rear garden under a pink dogwood. How amply Nature supplies us with these specimens of her largesse.

We are now approaching summer, that season redolent with beauty and color. At our summer home on Bainbridge Island, where we have gone for many years, is a simple old-fashioned garden. Roses that were planted forty years ago are in some cases still blooming well. 'Crimson Rambler' over the garden gate, the lovely 'Etoile de Hollande,' the white 'Frau Karl Druschki,' and 'Ophelia,' still a fine rose by modern standards, all fill the air with a soft fragrance. A single-petaled rose, 'Irish Elegance,' and 'Cecile Brunner' are there as well. For the experienced gardener, or the new one for that matter, in a home garden nothing quite takes the place of a perennial border. Largely a thing of the past because of the maintenance problem, it is still possible to have one if one's standards are not too high. Each year we look forward to the potpourri of color that these hardy perennials give. There are Sweet Williams, delphiniums in muted shades of blue, Shasta daisies, astilbes, peonies. This is a restful garden inviting one to meditate, if the numerous garden chores ever permit this luxury. Looking far beyond at the jagged peaks of the Olympic Mountains, one feels that he is but a small part of a Master Plan, in which we are privileged to share.

September gives the first, faint hint that summer is nearly over. The days are becoming cooler; the mid-day sun does not remain so long to warm us. But there is freshness and clarity in the air that is a tonic. The leaves begin to turn; on *Photinia glabra* they become a rich red. With the first rains one becomes obsessed with a desire to move shrubs and plants that are crowded. However, October is a better month for that. Back in the city again one finds that a muted atmosphere now envelops the garden. The leaves of the pin oak *(Quercus palustris)* are of a soft ruddy hue. Blues and lavenders seem to predominate in flowers such as Michaelmas daisies and the *Ceanothus.* Gone are all of the brave and bright spring colors and in their place are quiet shades. Except for an occasional late-blooming annual or the bright Virginia creeper's red foliage one is reminded that autumn has crept upon us, unawares.

Before winter is really upon us in the Northwest, the days become overcast. But one can never say that the gardens lack luster or interest. Nature is an alchemist, manufacturing bright touches here and there, in berry or foliage. One of the surprises that she has in store are the Sasanqua camellias. By November these are almost overnight a

(Continued on Page 47)

Research and the Arboretum

J. A. Witt*

An arboretum has many facets — to some it is a place of beauty, to others a museum or repository of living plants, but to a smaller group it is a source of plants with which to carry on some research project. Each year we receive requests from institutions, or individuals engaged in plant research, for living plants or for scion material from our collections. In 1962 we were able to fill seven requests; in 1963, twelve. The material shipped ranged from cuttings of native willows to pine seedlings and even one shipment of native strawberries. They were requested by workers from as close as Washington State University, Pullman, *(Malus* scions) or Oregon State University, Corvallis, Oregon, *(Chamaecyparis* cuttings) to a research station, Pont-de-la-Maye, France, *(Prunus* budwood and scions), or Takisawa, Japan, *(Salix* cuttings).

At times the requests for research material go beyond the usual trees and shrubs found in the Arboretum. We are often asked to supply plants (or seeds) of native herbaceous plants and, if at all possible we try to comply, even to the extent of making a special trip to collect the wanted item. Such was the case with the native strawberry, *Fragaria virginiana* var. *platypetala*. The request came in the form of a scribbled note on a seed exchange list, received early in the spring from the Main Botanical Garden, Academy of Sciences, U.S.S.R., Moscow. We collected several small strawberry plants in the Cascade mountains and after inspection by the U. S. Plant Quarantine they were duly sent air mail to the U.S.S.R. The story has an unhappy end, however, for some months later we received a letter from the deputy director thanking us for the plants but reporting that they were received in such a dry condition they had no chance of survival. Obviously the lines of communications between the U. S. and the U.S.S.R. still leave something to be desired. There seems to be no "hot line" for plants at least. The Main Botanical Garden, Academy of Sciences, U.S.S.R., did get another chance at our strawberries, however. After a successful collecting trip to Chinook Pass during the fall months we were able to send them seed of two species in September. These were duly acknowledged and we hope they now have small plants. Presumably they will be used in a strawberry breeding program.

The uses made of the material sent out is as varied as the plants themselves. A collection of maple *(Acer)* seeds and scions went to the Shade Tree and Ornamental Plants Laboratory, U. S. Department of Agriculture, Delaware, Ohio, for testing in a climate more severe than ours. Willow *(Salix)* cuttings were in some demand, with shipments going to Japan for botanical study and to Germany and Washington, D.C., for experimental use as erosion control shrubs. We even sent plants of our lovely *Ceanothus impressus* 'Puget Blue' to California to serve as a virus-free stock for a disease study on the California wild lilacs, and scions of three Chinese rhododendrons to the Royal Botanic Garden, Edinburgh, Scotland.

These quite typical examples demonstrate how the Arboretum serves as a source of research material to scientists throughout the world. It is one of the most satisfying functions we engage in.

Below is a list of places requesting research plant material for the past two years and what was sent to them.

Research Material Distributed 1962-63

1962

G. H. Ware, Northwestern State College, La.	Cuttings of poplars
L. F. Roth, O S.U., Corvallis, Oregon	Cuttings of *Chamaecyparis*
H. Lattke, Graupa-u-Pirna, Germany	Cuttings of *Salix*
R. Simonet, S. Edmonton, Alta., Canada	scions, *Sorbaronia*

*Assistant Director of the Arboretum

(Continued on Page 40)

Inst. Forest Genetics, Placerville, Calif. ..... *Pinus Sosnowskyi* seedlings
Dr. E. R. Orton, Rutgers Univ., N.J. ..... *Ilex altaclerensis* 'Eldridge' cuttings
Station des Recherches, Pont-de-la-Maye, France ..... Budwood, three *Prunus* spp.

1963

Dr. R. L. Schreiber, U.S.D.A., Delaware, Ohio ..... *Acer* scions (19)
Mrs. Morris Smithberg, Univ. Minn., St. Paul, Minn. ..... *Cornus* scions (3)
G. E. Evans, Montana State College, Bozeman, Montana ..... *Sorbus* scions (4)
R. B. Thornton, U.S.D.A., Beltsville, Md. ..... *Salix* and *Cornus* cuttings
Dr. C. Heimburger, Maple, Ontario, Canada ..... scions of pines (6)
Dr. F. E. Larsen, W.S.U., Pullman, Washington ..... *Malus* scions (2)
Dr. S. Murai, Takisawa, Japan ..... *Salix* scions (3)
Edinburgh Bot. Gdn., Scotland ..... *Rhododendron* scions (3)
Dr. H. E. Williams, Calif. Dept. of Agriculture, Sacramento ..... Plants, *Ceanothus* 'Puget Blue'
Dr. P. Lapin, Main Botanical Garden, Moscow, U.S.S.R. ..... Plants and seeds of *Fragaria*
Station des Recherches, Pont-de-la-Maye, France ..... *Prunus* buds (2)
Station des Recherches, Pont-de-la-Maye, France ..... *Prunus latidentata* scions

Recommended Magnolias for a Beginner's Collection

R. Todd Gresham*

A QUICK glance at Dr. Fogg's monumental compilation of Magnolia Varieties and Species Cultivated in the United States and Canada will convince anyone of the difficulty encountered in attempting the selection of Ten Favorite Magnolias for a Beginner's Collection.

This listing constitutes a show case of practically all the magnolia sections, or an inter- or intra-fusing of two sections, and brief comment on their value and dependability. With the exceptions of *Magnolia grandiflora, M. mollicomata,* and *M.* X *Thompsoniana,* all are reasonably hardy. They are listed in approximate blooming sequence, calculated to reward the grower with almost twelve months of constant magnolia blossoming pleasure.

1. *Magnolia stellata* 'Water Lily'
2. *Magnolia Soulangiana* 'Alexandrina'
3. *Magnolia mollicomata*
4. *Magnolia Soulangiana* 'Lennei'
5. *Magnolia obovata*
6. *Magnolia* X *Watsonii*
7. *Magnolia Wilsonii*
8. *Magnolia* X *Thompsoniana*
9. *Magnolia macrophylla*
10. *Magnolia grandiflora* 'St. Mary'

Magnolia stellata 'Water Lily' is completely captivating and indispensable for a profusion of early multiple-petaled, pink flushed, water lily shaped blossoms. Stronger growing than most *stellata* forms, it may be used effectively in many original ways to suit individual imagination; as a small formal trunked tree; multiple trunks; espaliered on fence or building; trained low and trimmed as a form-fitting garland for a rolling hillock.

I consider *Magnolia Soulangiana* 'Alexandrina' a reliable early bloomer, with a profusion of pure rosy blossoms over an exceptionally long period of time. The plant habit is vigorous and symmetrical. An alternate choice would be *M. Soulangiana* 'Lennei alba,' a wonderful white tulip-form.

Magnolia mollicomata, the latest flowering and hardiest of the *M. Campbellii* clan, also blooms in a shorter time from seed or graft than *M. Campbellii.* In color it ranges from white with violet base shading, to the fuchsine purple *M. Campbellii* subsp. *mollicomata* convar. 'Lanarth.' *M. collicomata* is characterized by large flowers of good substance, the outer petals reflexing at maturity. Grow this one without fail if conditions are favorable.

Magnolia Soulangiana 'Lennei' is the latest to bloom of the colored *Soulangiana* and the finest: Its huge dark wine goblets will not be mistaken for any other *Soulangiana.* The late blooming season enables it to escape late frosts, which damage many other varieties.

Magnolia obovata, an Asiatic "Big Leaf" magnolia, requires room to develop. Not a

*Reprinted by permission of the author, and editor, Dr. J. M. Fogg, Jr., Director of the Morris Arboretum, Philadelphia, from the first issue of the American Magnolia Society's *Newsletter* (March, 1964). Membership in the Society can be obtained by sending $2.00 to Mr. Gresham, Treasurer, at 103 Frederick St., Santa Cruz, California.

very compact grower, the large obovate leaves with silvery reverse are most interesting. Leaf buds, annular scars, and flower buds have a primitive antediluvian appearance. The deep ivory blossoms, with purplish sepals, have thick tepals of waxy texture. Their exotic fragrance is the odor of all tropical fruits and perfumes combined in one. Tutti-frutti.

Magnolia X Watsonii, the natural hybrid of *Magnolia Sieboldii* and *M. obovata,* fuses good characters of its two parents in a flowering plant of great value. *M. obovata* has transmitted ample foliage of rich dark green, with silvery reverse, and robust growth. Flowers are waxen, of *M. obovata* substance and fragrance; it has *M. Sieboldii's* boss of carmine anthers and whiteness.

Magnolia Wilsonii, the most upside-down of the Oyama Magnolias and, in good forms, the best. Large, six to eight inch, fully pendent pure white salvers with a striking boss of carmine anthers. Unmistakeably attractive. One cut blossom pervades a room with the pleasant sweetness of its perfume. Grow it as a high standard, so you may look *up* into the blossom's vibrant heart, or as a pleached alley.

Magnolia X *Thompsoniana,* natural hybrid of *Magnolia tripetala* by *M. virginiana,* was a fortunate natural mating. Blooming during the summer, the ivory blooms of good size and enchanting fragrance are set off by foliage of a glossy dark green. Situated near a terrace, or family gathering spot, this magnolia will be the family pet, it is so amiable and endearing. In regions where *M.* X *Thompsoniana* is not hardy, plant *M. virginiana,* a worthy substitute.

(Continued on Page 47)

Below—

Flower of *Magnolia macrophylla,* 9 ins. diameter, in Arboretum, July 7, 1953

FIG. 3 PHOTO BY: E. F. MARTEN

An Amateur Looks at Rhododendron Seedlings

Herbert G. Ihrig*

ONE of the most interesting features of growing rhododendrons is the variation in species seedlings. This is a phase that is not generally understood or appreciated. Most gardeners begin with hybrids and therefore are not confronted with this factor of variability. When they buy a named hybrid such as *Loderi* 'King George,' 'Mrs. Furnival,' etc., it is exactly like every other one, if properly labeled. While botanical rules require all like crosses be named the same as the originally published name, and this results in some variation, basically the established named hybrids are vegetatively propagated and we might say are part of the original plant.

This method of vegetative propagation can likewise be used with species but is seldom done commercially as it is generally unprofitable. Most species available are grown from seed and subject to wide variation. There are of course certain standards of classification but there is no fixed pattern that makes them all alike. For instance: you might buy ten *R. decorum* from ten different growers and no two would be exactly alike. The differences might be slight or considerable yet all would be *R. decorum*. I have grown thirty plants from one seed pod and had almost that number of varieties yet all would be classified as the same species.

These variations are what make species hard to identify and as a friend facetiously remarked, "When the experts are stymied they invariably remark 'It's a hybrid'." There is much truth in this statement because most of the species have some hybrid factors in their makeup.

How then define a species? Scholarly authorities differ in their definitions and I shall not attempt to outline these differences but try to give you one in simple "grocery store" English; a species is merely a tag or label which scientists attach to plants with common characteristics for the purposes of identification. Mother Nature doesn't pick these names or establish the standards but this is necessary for the purposes of classification and study. Also, species generally reproduce like characteristics. According to some students this reproduction of form constitutes their standard for species. However, plants pollinated under the most thoroughly controlled conditions will show variations in leaf structure, color, markings and other factors.

What has intrigued me most is the extent of this variation and the occasional plant of outstanding beauty, far above the average of the species. For lack of a better word I call these mavericks. They have almost all the characteristics of the species yet in one or two features will depart from the standard or excel it. As examples I mention the following:

R. cinnabarinum; out of forty seedlings three were of superlative beauty.

R. yunnanense; of thirty seedlings two were noteworthy, many commonplace.

R. Thomsonii; fortunately all of my plants turned out to be of excellent form and color but I got one maverick with all the principal features of the species except the cup calyx. This one has a disc calyx and is a brighter red.

R. irroratum; another departure from the standard. Is a heavily flushed pink with much larger dots. Have found this variety reported only in England.

R. litiense; these plants vary so much that I think of them as what Ben Nelson calls "the *Wardii* complex" and leave further identification to others. However, again a maverick with blue-green leaves and generally quite different from the others.

R. glaucophyllum; aromatic foliage with old rose flowers but one a beautiful shade of

(Continued on Page 46)

*We are most happy to offer a contribution again from the dean of amateur rhododendron growers in the Puget Sound region.

New or Unusual Plants in the Arboretum — XIV

*Quercus glauca** *Thunb.*

J. A. Witt

CASUAL visitors to the Arboretum are often heard to complain about the use of scientific names for the plants growing here. Actually, most of them do not care one way or another about the Latin epithet, what they want is some English name to carry home with them. Whenever possible we try to supply this and often make use of *Standardized Plant Names* (2nd edition, 1942), a book published for the sole purpose of listing approved common and scientific names. Unfortunately, in many cases we find the names given for some of the lesser known species to be neither common nor sensible. The subject of this article is a fine example.

Quercus glauca is, according to *Standardized Plant Names,* the Japanese blue oak. It does occur in Japan so the Japanese part would seem to fit. The specific epithet, *glauca,* refers to the blue-green underside of the leaves so at first glance the name seems apt. However, closer examination proves the fallacy of common names. First, *Q. glauca* is native to Japan, Taiwan, a large part of China and west into the Himalayas, so to ascribe its home to Japan is to ignore three-fourths of its natural range. Second, the blue on the underside of its leaves is remarkably pale and most inconspicuous; in fact, the tree has a decided reddish bronze cast in the spring and during summer and winter its predominant color is yellow-green.

Having created and destroyed the paper dragon of the common name I now find myself in the embarrassing position of admitting that the scientific name has been and is less than stable. There are at least seven synonyms for *Quercus glauca,* including several that remove the tree from the genus *Quercus* and place it in the genus *Cydobalanopsis.* This, however, is not surprising when one considers its wide geographical distribution.

To get down to specifics, however, there are two smallish evergreen oaks growing in the Arboretum, one on the north side of the oak section, near the north end of Arboretum Drive E., and one near the center of Foster's Island that were received in 1937 as plants of *Q. acuta,* a gift from Mrs. O. B. Thorgrimson of Seattle. The tree in the oak section was checked in 1953 and discovered not to be *Q. acuta,* but it was not until 1955 that the late Dr. Clarence Kobuski of the Arnold Arboretum identified it as *Q. glauca.* Unfortunately, Mrs. Thorgrimson could not at that time recall where she got such unusual oaks but suspected they came from either a California or a New Jersey nursery.

Despite their confused past, our two *Q. glauca* have become interesting and attractive plants. The specimen on Foster's Island is multi-stemmed, about twelve feet tall and rather wide spreading. At some time in the past, perhaps in November 1955, its leader was cut back and several lateral branches assumed a vertical habit. The tree in the oak section is more erect, about seventeen feet tall with an oval outline. The foliage on both trees is similar. The leaves are persistent, although they tend to drop as the new foliage develops in the spring. On vigorous shoots the leaves are elliptic — lanceolate, on mature growth, elliptic to obovate, long acuminate, with rounded to broadly cuneate bases, the margin crenate-serrate for about half to two thirds their length. They are dark to yellow-green on the upper surface and glaucous below. Our two specimens differ slightly in the leaf; the tree in the oak section has a silky pubescence on the under side of both young and mature foliage while the Foster's Island plant is nearly glabrous except for a few ciliate hairs on the new leaves. This plant also tends to have narrower and somewhat longer leaves than its companion, particularly those on vigorous new shoots. Differences such as these are to be expected,

(Continued on Page 49)

*See Cover Page

The Arboretum Bulletin

Vol. XXVII, No. 2 Seattle, Wash. Summer, 1964

ARBORETUM FOUNDATION OFFICE HOURS

9 a.m. to 4:30 p.m., Monday through Friday
Phone EAst 5-4510

OFFICERS

M. C. Collarino, *President*
Donald K. McClure, *Vice-President*
Thomas Telfer, *Vice-President*
Mrs. Rex Palmer, *Vice-President*
Mrs. John A. Clark, *Vice-President*
Mrs. Henry Schmitz, *Secretary*
Jackson K. Holloway, M.D., *Treasurer*
Miss Gene Webb, *Executive Secretary*

BULLETIN EDITORIAL BOARD

Dr. Henry Schmitz, *Editor*
Mrs. Page Ballard
Mrs. Robert Berry
Mrs. Donald C. Davis
Mrs. Allen B. Engle
Dr. Arthur Kruckeberg
Brian O. Mulligan
Dr. David Scott
Mrs. Leonard Wilcox

Life Members
Mrs. J. Thomas Dowling
Mrs. O. B. Thorgrimson

SPECIAL NOTICE

To keep memberships in the Arboretum Foundation in good standing, dues should be paid during the month payable. Active memberships more than three months in arrears will be dropped and The Bulletin will be discontinued.

MEMBERSHIP BLANK

- ☐ Life $500.00
- ☐ Sponsor ..... $100.00 to 500.00
- ☐ Supporting 50.00
- ☐ Contributing 25.00
- ☐ Sustaining 10.00
- ☐ Annual 5.00
- ☐ Group Affiliation
  Garden Clubs, etc. ..... 10.00 or more

The Arboretum Foundation,
University of Washington Arboretum
Seattle, Washington

I hereby apply for membership in the Arboretum Foundation and remittance for same is enclosed to cover dues for the next succeeding 12 months.

Name.....

Address.....

All memberships are non-assessable.

NOTES & COMMENT

THE first flowering of a tree or shrub is an event always that gives us a thrill, especially if the plant happens to be rare or unusual. This is particularly true of plants that might have some potential ornamental value since it gives us our first opportunity to judge its merits. This season has seen a surprising number of plants flower for the first time, including a goodly number of rhododendrons, both species and hybrids, that were planted out as replacements of specimens killed in the November 1955 freeze.

Rhododendron Ririei, a relative of *R. arboreum,* flowered in the nursery in late February with trusses of large purple-red florets that suffered somewhat from the frosts. It was followed by the first flowers on *R. calophytum,* a plant nearly twenty years old, then by a host of others including some species received as seed in 1945, and hybrids from crosses made in the Arboretum in 1955 and 1957.

Rhododendron Pingianum, raised from seed collected in 1946 on Mt. Omei, western China, opened its blossoms for the first time and we were able to determine that it is very similar to *R. argyrophyllum.* As this is being written, in mid-June, we are still awaiting the first flowers of *R. Hemsleyanum,* a *Fortunei* relative which came from Mt. Omei at the same time.

The lath-house saw an interesting first when *Enkianthus sikokianus* produced slender racemes of deep reddish-brown bells in early June. These plants were raised from Japanese seed and seem to resemble *E. campanulatus* var. *Palibinii.*

One of the most exciting first flowerings occurred in the Camellia section where a large plant of *Drimys Winteri,* the Winter's bark of South America bloomed in the Arboretum for the first time. It normally takes many years for this shrubby relative of the magnolias to reach flowering size so we were most surprised to see this specimen planted out only six years ago produce its loose clusters of white flowers in late May.

Two young trees of *Stuartia sinensis,* a camellia relative from China, opened their two-inch-wide white flowers for us in early June. One tree actually had a few flowers last year but the blossoms were so hidden that we did not see them and only knew about the event when we found several seed capsules on its bare branches last autumn. This *Stuartia* is the earliest of the genus to bloom, about two weeks ahead of *S. pseudocamellia,* and promises to be a first-class ornamental small tree.

This list could go on with several *Euonymus* species, *Camellia reticulata,* single type, (outside the greenhouse), several horticultural varieties of *Prunus serrulata,* and so on. Each new specimen to flower is an indication of the maturing of the Arboretum.

Visitors, May & June 1964

DURING the month of May 1964, we counted the largest number of cars ever recorded in one month on our traffic counter outside the offices, — 27,097. For comparison, in May 1963 the figure was 21,800, and in 1962, 23,716. No doubt the fact that there were five week ends in May this year and the weather during the last week was especially fine and sunny, contributed largely to this high figure, but we like to think also that it may have been due in part to the exceptional quantity of bloom on many of our trees and shrubs this year, particularly the rhododendrons which have given their finest display since perhaps 1955.

During the six weeks from May 1 to June 12 we have received visitors from Hawaii, Japan, Thailand, England, Ireland, Sweden and Yugoslavia, as well as from 22 states in the continental United States and from British Columbia, Canada.

Of these we must particularly note the group from Dublin, Ireland,—Dr. T. J. Walsh, Director of the National Botanic Garden, Mr. J. P. Fanning, Senior Horticultural Officer of the Department of Agriculture, and Mr. A. M. S. Hanan, Forestry Research Officer, — who spent June 4 and 5 in Seattle visiting this Arboretum and seeking ideas for the proposed National Memorial Park in Co. Wexford, Ireland, to the late President J. F. Kennedy. We were honored to be the only arboretum visited on the west coast and glad to see and assist such rare visitors, who also attended the annual meeting of the Arboretum Foundation on June 4.

This is your Arboretum, kept alive by your support

We are pleased to welcome the following new members (March 14 through May 31, 1964): *Sponsor*—The R. D. Merrill Foundation, Lawrence M. Arnold, Carnation Company, Mrs. Norton Clapp, Donald N. McDonnell, Pacific Northwest Bell, Mrs. Corydon Wagner, Howard S. Wright Construction Company. *Supporting*—Friedlander & Sons, Inc. *Contributing*—Margery and Paul Friedlander Foundation, Madison Park Pharmacy. *Sustaining*—Beachcombers Garden Club, Mr. and Mrs. Perry W. Boyer, L. James Brady, Mrs. Clarie L. Egtvedt, Mrs. Sue B. Hoffmann, Mrs. Thomas F. Oliphant, George M. Schnellhardt. *Annual*—Mrs. Don G. Abel, Jr., Mrs. Keck Amundsen, Mrs. Thomas W. Anderson, Mrs. Herma M. Archer, Mr. and Mrs. John F. Behnke, Mrs. Buel B. Blake, Boerner Botanical Gardens, Mrs. Regnar Brochner, Mrs. Nils E. Broo, Mrs. Lawrence A. Brown, H. D. Campbell, Mrs. L. A. Christensen, Mrs. Richard Footh, Dr. Lois Frayser, William R. Garren, Mrs. G. R. Gowen, Mrs. Marshall Hatch, Mrs. Frederick Hayes, Mrs. Richard L. Hillbery, Mrs. A. A. Johnson, Mrs. Barbara M. Jones, Miss Lucile Jones, Mrs. W. Kent, Mrs. Richard H. Kirlin, Mrs. Fenton Lane, Walter B. Latimer, Mr. and Mrs. J. David Lewis, Mrs. Max Meerkerk, Mrs. Walter Meredith, Mrs. Naomi H. Morgan, Mrs. Arthur E. Piehler, Mrs. Robert Potvin, Mrs. G. M. Shellan, Mrs. Denman P. Smith, Mrs. James R. Tenneson, Tennessee Botanical Gardens, Mrs. Bernard R. Thunem.

We are also most grateful to the following members who have increased their dues to: *Sponsor*—Isaacson Iron Works, Mrs. John A. McCone, Mrs. Charles E. Stuart. *Supporting*—Bogle, Bogle & Gates, Mrs. C. Spencer Clark, Mr. and Mrs. Philip A. Johnson. *Contributing*—Mr. and Mrs. Paul P. Ashley. *Sustaining*—Mrs. W. P. Hews, Mr. and Mrs. Harry C. Olsen.

Some of Our Favorites☆

☆Won't You Send Us Yours?

Raphiolepis umbellata var. *ovata*

MY candidate for honors will never stop traffic in front of your house, but *Raphiolepis umbellata* var. *ovata* can be a source of pleasure every month of the year. The bold, leathery, rounded two- to three-inch leaves of this broad-leaved evergreen shrub are covered with a whitish pubescence as they unfold in the spring and as they mature turn a dark olive green. The leaves are borne alternately and seem to grow in neat rosettes which make an attractive frame for the fragrant white racemes which open in May. The flowers are followed by small purplish-black berries and persist all winter.

The shrub seems to be of easy cultivation in full sun and in my rockery seeds itself quite readily. In five years it has grown to three feet in height and is four or five feet wide. The foliage seems to be resistant to insect damage or mildew and always remains healthy looking. The bold texture and dark color of this shrub makes it a good companion of *Viburnum Davidii* and Mugo pine. *Raphiolepis umbellata* var. *ovata,* sometimes called the Yeddo hawthorn, is a member of the *Rosaceae* family and a native of Japan where it is said to attain a height of 12 feet.

Raphiolepis indica var. *rosea,* the Indian hawthorn, is another valuable member of the family. It is more delicate both in form and growing requirements. The leaves are a shiny, lighter green, slightly toothed and less heavy in texture. The clear pink flowers in May are nestled in the bronzy new foliage and the shrub will bloom intermittently until frost. It needs a warm sheltered location in the garden as it is not as hardy as *R. umbellata* var. *ovata.*

KAY (MRS. J. A.) OGLE

BOOK REVIEW

Trees and Shrubs of New Zealand by A. L. Poole and Nancy M. Adams. Government Printing Office, Wellington, N.Z. (1963). 250 pages, cloth. Price 25 shillings.

THE woody plants of New Zealand offer the local gardener a challenge, both in obtaining them and then growing them after their acquisition. The first task, that of finding New Zealand plants, is perhaps the hardest since few nurseries carry natives of those islands. Despite the fact that New Zealand occupies approximately the same latitudes in the southern hemisphere as the Pacific Coast of the United States does in the northern, many of their finest plants are definitely on the tender side in the Puget Sound region.

Even so, the Arboretum has a fairly large number of shrubs and a few trees from this commonwealth nation and some are very attractive ornamentals indeed. The Hebes, *Nothofagus, Olearia* and *Hoheria* are good examples of New Zealand plants that have done well here, and we may expect others will be successfully tried as time goes on. Because of this interest in New Zealand's woody flora we sincerely welcome an illustrated book of this type.

This account of it is written for the layman as an aid in identifying the more common trees and shrubs met there and is perhaps a bit too simple for the professional botanist. The text is essentially in the form of keys. There is a key to the genera under each family heading and keys to each species under the genera. The descriptions of the species are rather shorter than one might like but there are beautifully done block engravings of most plants covered in the text.

An interesting deviation from similar floras lies in the use of vegetative characters in keying out the species. The authors state that the flowers of many of their plants are often short lived and inconspicuous and those of the trees are unobtainable, an attitude that others might follow to advantage.

The introduction gives a brief account of the various provinces of New Zealand's forests and woodlands and several paragraphs on the influence of Man and introduced animals on the original vegetation.

Although the stated purpose of the book is to help native New Zealanders to identify their own flora and to stir their interest in conservation and ecology, we who grow their plants will find this work of great value and more than a little interesting.

J. A. W.

An Amateur Looks at Rhododendron Seedlings

(Continued from Page 42)

apple blossom pink, a really choice and unusual shrub.

There are many others I have not mentioned. Why this wide variation? I have asked myself this question over a long period of years and the best answer I have found comes from Mr. Luther Burbank. But please remember I am neither a botanist nor a horticulturist but merely an amateur; my

interpretation may be erroneous but it appeals to me as it is the only one that seems to make sense. He says in effect that every seed contains something of the experiences of unnumbered generations that preceded it, and when I view an exceptional plant I like to think that some ancient ancestor crossed with a beauty queen of that time and that their progeny has reappeared after the intervening generations. I'll leave it to the geneticists to explain how.

To gardeners these remarks may be disturbing depending on whether your plant is superlative, mediocre or poor. If superlative, cherish it, for it may be one in ten thousand; remember it is the beauty of the plant that counts, not the name on the label.

Recommended Magnolias for a Beginner's Garden

(Continued from Page 41)

The title, "King of the American Umbrella Trees," must be accorded *Magnolia macrophylla*. Fourteen-inch white blossoms nest in a wheel of radiating leaves to 36 inches long by 12 inches wide, ghostly white on the under surface. Ultimately attaining large proportions, it should be carefully situated where strong winds will not tear the parchmenty foliage to tatters. For creating bold tropical effect in landscaping. *M. macrophylla* has no rival among deciduous woody plants hardy in the Temperate Zone. (Fig. 3)

Magnolia grandiflora 'St. Mary' has been propagated vegetatively longer than any other *M. grandiflora* cultivar. Time has proven its reliability as quick to bloom, consistent producer of classic sweetly scented alabaster chalices. Not so robust in growth as most *grandiflora* forms, it has a neat growing habit, good dark green proportionate foliage, and plentiful rusty indumentum. A lawn, garden, or street tree of the highest quality, wherever hardy.

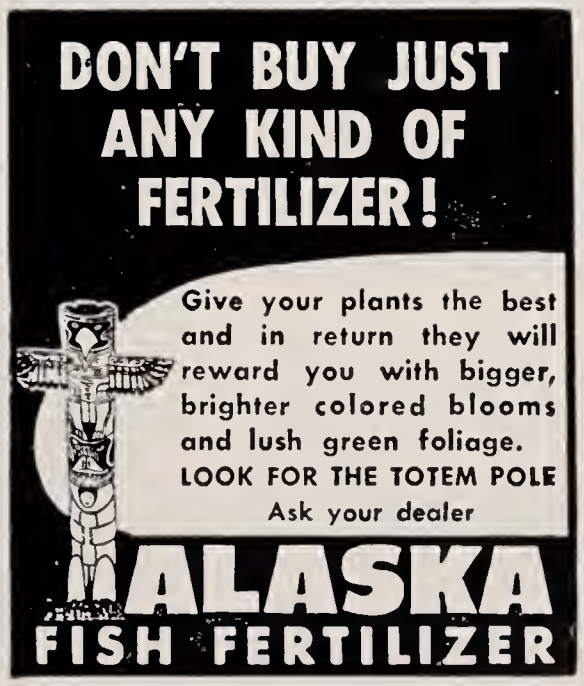
Around the Seasons in Our Garden

(Continued from Page 38)

mass of fluted bloom. We especially enjoy 'White Doves,' which grows over a lattice fence, and "Showa-no-Sakae' that is like a single-petaled rose. *Viburnum Davidii,* with its turquoise-colored berries, is also favored. It has a deep green leaf growing especially well, its large loose clusters of berries well above the foliage. The noble strawberry bush *(Arbutus Unedo)* puts forth its fruit or clusters of berries in late November. Its bright red berried holly *(Ilex Aquifolium)* does well in partial shade and *Pyracantha* covers chimney and garden walls with a coral red berry.

These broad-leaved evergreens are the warp and woof, the very structure of our gardens in the Puget Sound region. They are more valuable to gardeners than any other plant material. The color and texture of their evergreen foliage is a source of satisfaction throughout the year. Small shrubs that seem to one perhaps inadequate in a new garden will in four or five years, given good care and ample moisture, be a reward that is beyond expectation. The seasons follow one another in quiet progression while Nature goes about her immemorial task of beautifying and regenerating our environment.

REARDON WHOLESALE NURSERY
Rhododendrons
Heather • Azaleas
14244 First Avenue South
Phone CHerry 3-4134
Don Reardon—Home Phone SH 6-9047



Beautify Your

GARDEN

BROAD-LEAFED EVERGREENS

RHODODENDRONS
Azaleas
FLOWERING & FRUIT TREES
Annuals and Perennials

Complete Selection of
Superior Plants

WIGHT'S
NURSERY

Phone HU 6-3258
6110 N.E. Bothell Way, Seattle, Wash.

PREVENT ROT
WITH
CUPROLIGNUM

Rot is expensive and
inconvenient when
it rots your

COLD FRAMES GARDEN STAKES
SEED FLATS TRELLISES
WINDOW HOTHOUSE
BOXES BENCHES
ETC.

Where there is CUPROLIGNUM
there is NO ROT

Sold by Most Lumber Yards and
Hardware Dealers

Manufacturers

Rudd Paint & Varnish Co.
SEATTLE
Sole Distributors RUDD & CUMMINGS
1608 15th Ave. W. SEATTLE, WASH.

My Garden Is for the Birds

(Continued from Page 32)

last summer there were five nuthatches vieing for claw room.

We have a city friend whose small garden cannot produce enough fruits so she collects branches of red elderberry in the country and stores them in her freezer until winter comes.

My children have bestowed a title upon me. They call me the "Bird-batty bookbinder of Funnybrook Farm." This I do not mind, but when a letter addressed to "The Funnybrook Sanitorium for Indigent Robins" arrived in our mailbox, I began to suspect that my reputation had gone beyond the borders of our twenty acres and had reached the local post office.

Joseph Hickey has said that birdwatching is a "disease of the central nervous system" and that its cure requires "rising at dawn and sitting in a bog." Gardeners can birdwatch in comfort by providing the three avian necessities — water, protection, and food. Bread cast to the birds brings its own reward. They will give us countless dollars worth of insect control, if they make their homes in our gardens.

A little clipping once came my way that explains our philosophy of land rights much more effectively than any words of mine. I do not know its printed source but its author was said to be Catherine Berry.

OWNERSHIP

Who owns this land? The man
Who puts a fence around its rim?
Who turns the sod in spring?
Who reaps the harvest given him?
I like to think that he is but
A holder in his time
Of deeds and warranties — that birds
Who seek a warmer clime
When snow has covered northland wastes
Hold prior claim to it.
That deer which came to forage grain,
And butterflies that flit
Among the flowers, and bees that hum
And all small things that roam
On these wide acres, know that they
Can call this land their home.

BIBLIOGRAPHY

The Audubon Guide to Attracting Birds ..... J. H. Baker
How To Watch the Birds ..... Roger Barton
Field Guide to Birds of Washington State ..... E. H. Larrison and E. N. Francq
American Wildlife and Plants ..... Martin, Zim and Nelson
Birds in the Garden ..... Margaret McKenny
The Birdwatchers (Juvenile) ..... Marjory Bartlett Sanger
Songbirds ..... John K. Terres

New or Unusual Plants in the Arboretum

(Continued from Page 43)

however, in a species that ranges across Asia from Japan to India.

The new foliage is very attractive as it develops in the spring, the little leaves unfurl from the buds coppery-purple and overlay the green of the tree with a richly colored mantle.

Oak flowers are not especially showy, and until this spring our trees had only developed a few infertile acorns. This year, however, the staminate catkins are visible on the tree in the oak section and it is possible that it may produce viable fruit in the fall. If so, we shall see why some botanists feel these trees belong to a genus distinct from *Quercus*. Those evergreen oaks which have the cup in which the acorn sits composed of a series of concentric rings instead of overlapping scales are called by some *Cyclobalanopsis,* and our plants should have this type of cup.

Quercus glauca appears to be as hardy as any of our evergreen oaks. Our two trees have been growing in the arboretum for at least twenty years and neither site is particularly protected. True, they both suffered from the 1955 freeze, but nowhere as severely as might be expected.

Oaks are difficult plants to propagate unless seeds are available, but cuttings taken from *Q. glauca* in September rooted well under mist in the greenhouse.

In China *Quercus glauca* may develop into a sixty-foot tree and is highly thought of as a source of lumber. In Japan, however, the wood is not so considered, according to Professor C. S. Sargent *(Forest Flora of Japan,* 1894, but there was (is?) considerable commercial use made of the acorns which were (are?) cooked and eaten. At the rate our trees are growing and fruiting it seems evident that they will never be a source either of timber or food, but they are interesting and ornamental little trees and may find a place in Pacific northwestern gardens.

To add the UNUSUAL and DISTINCTIVE to your garden . . . visit us for all your BROAD-LEAVED EVERGREENS and FLOWERING TREES, including over 100 varieties of RHODODENDRONS and AZALEAS.

BONNYBROOK NURSERY

Try Us . . . We May Have It — KIRKLAND-BOTHELL HIGHWAY • VAndyke 2-5917

Bunge Lumber & Hardware Co.

High Grade Peat Moss and
All Types of Fertilizer

Including

Acid Fertilizer for Rhododendrons, Azaleas, Camellias, etc.

WEst 2-0022 — 9616 16th Avenue S.W., Seattle 6

SUMMER IS HERE

"Visitors Welcome"

FLOWERING EVERGREENS

COMPLETE ASSORTMENT OF TREES, SHRUBS AND BROAD-LEAVED EVERGREENS

CLEMATIS VINES

And a Wide Selection of Other Flowering Vines to Choose From

HOPKINS NURSERY

On Old Bothell-Kirkland Highway

15028 100th Ave. N.E. Bothell
HUnter 6-2061

FURNEY'S HI-LINE NURSERY

If You Are Looking for the Best Landscape Items in the Northwest at a Real Saving!

Rhododendrons
Azaleas
Broad-Leafed Evergreens
Annuals and Perennials

UNUSUAL, HARD-TO-FIND PLANTS

Over 350 Choice Landscape Items

21215 Pacific Highway South
TRinity 8-8761

Leaves from the University of Washington Arboretum

(Continued from Page 36)

Althaea rosea, and rye for *Secale* are not regulated by this code." Article 5 states that "The term 'cultivar,' abbreviated 'cv,' denotes an assemblage of cultivated individuals which is distinguished by any characters (morphological, physiological, cytological, chemical, or other) significant for the purposes of agriculture, forestry, or horticulture and which when reproduced sexually or asexually retains its distinguishing features." Perhaps the most useful and important innovation in the nomenclature of cultivated plants is the term *cultivar*. The Cultivated Plant Code states in essence that the cultivar is an international term for the category known in various languages as "variety" in English, "varieté" in French, "variedad" in Spanish, "Sorte" in German, etc. The cultivar or varietal name follows the Latin binomial, as in *Syringa vulgaris* 'Decaisne.' There are several kinds of recognized cultivars. The clone is a cultivar consisting of a genetically uniform assemblage of individuals, derived originally from a single individual by vegetative propagation. A line, however, is a type of cultivar which is derived from sexually reproducing individuals, but these individuals maintain uniform appearance through seed or spore propagation. The rules of the formation and use of cultivar names are rather generous and wide in scope. The name is markedly different, usually, from the botanical name in Latin form. As far as I can tell, there is no restriction as to the language from which a cultivar name may be derived. One insistent rule is that the cultivar name be surrounded by single quotes. Occasionally, the cultivar name may be latinized; however, it still requires quotes. For example, *Lilium maculatum* 'Sanguineum'; *Calluna vulgaris* 'Carnea.' The code for cultivated plants puts considerable emphasis on the need for registration of cultivar names. It sets up a procedure and prescribes the rules for registration. For the professional horticulturist, the *International*

Code of Nomenclature for Cultivated Plants is an important regulatory reference.

I close these sketchy notes on plant names with a word of counsel and encouragement. You should eye a Latin name boldly, pronounce it without hesitation, and learn to use it according to the few simple rules that are now available to you. Your skill in their use will increase immeasurably once you begin using them. During your apprenticeship you would do well to look at some of the source books listed below.

BIBLIOGRAPHY

Arber, Agnes. 1912. *Herbals. Their Origin and Evolution.* Cambridge University Press.

Bailey, L. H. 1933. *How Plants Get Their Names.* Macmillan Co., N.Y.

Core, Earl L. 1955. *Plant Taxonomy.* Prentice-Hall, Inc.

Featherly, H. I. 1954. *Taxonomic Terminology of the Higher Plants.* Iowa State College Press, Ames, Iowa.

Gourlie, Norah. 1953. *The Prince of Botanists. Carl Linnaeus.* H. F. & G. Witherby, Ltd., London.

Grigson, G. 1955. *The Englishman's Flora.* Phoenix House, Ltd., London.

I.A.P.T. (editors) 1956. *International Code of Botanical Nomenclature.* Utrecht, Netherlands.

I.A.P.T. (editors) 1958. *International Code of Nomenclature for Cultivated Plants.* Utrecht, Netherlands.

Lawrence, G. H. M. 1951. *Taxonomy of Vascular Plants.* Macmillan Co., N.Y.

Lawrence, G. H. M. 1955. *An Introduction to Plant Taxonomy.* Macmillan Co., New York.

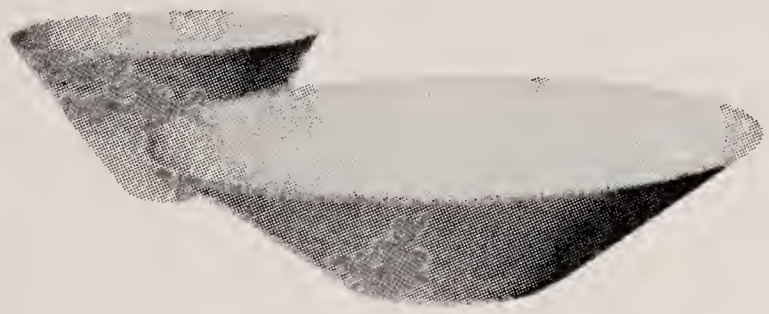
PRENTICE
Nursery & Decorating Co.
9252 E. Marginal Way S.

Phone RO 2-1242

Fiberglass Rocks and Waterfalls

Large Boxed Trees and Plants
Rhododendrons, Azaleas
and Unusual Plants

Exclusive Distributors of
AFRICAN POTS



Made of Asbestos
Sizes 48″ 28″ 22″

Landscape Design and Installation Our Specialty

COURTESY OF
Mt. Rainier Bulb Co.
1121 POST STREET

PLEASE MENTION THE ARBORETUM BULLETIN WHEN BUYING FROM OUR ADVERTISERS

For GIFTS and FLOWERS
of Unmistakable Distinction

Crissey
FLOWERS · GIFTS

1329 Fifth Avenue **MAin 2-1100**

TOP SOILS • MANURES
SOIL MIXTURES
ROCKERY ROCK

FAST DELIVERY SERVICE

Phones
PLANT—HUnter 6-3930
HOME—EMerson 2-5693

Bassett's
Gro-Earth

Mail Address
17050 Brookside Blvd.
Seattle 55, Wash.

AT COTTAGE LAKE

Complete
PRINTING SERVICE

Art and Design
Booklets and Folders
Annual Reports
Financial Printing
Legal Printing
Magazines and Publications
Calendars
Direct Mail Advertising
Complete Typesetting Service
Full Color Lithography

METROPOLITAN PRESS
2603 THIRD AVENUE MAin 2-8609
SEATTLE, WASHINGTON 98121

SAXE FLORAL

All Your Garden Needs
and
CUT FLOWERS
Too

LA. 3-4415 LA. 2-1951

CHOICE *and* UNUSUAL
Trees — Shrubs — Vines
Garden Accessories
TROPICAL INDOOR PLANTS
Largest & Finest Selection
in the Entire Northwest
Cut Flowers
Potted Plants and Gifts
COMPLETE FLORAL SERVICE

LAND OF FLOWERS
9701 - 15th N.W. — Phone SU 2-2544
Producers of Fine Plants Since 1888

INSURED

STATE LICENCED

Robertson
TREE SERVICE

SPRAYING
PRUNING
TOPPING
REMOVALS
SURGERY
FEEDING

SH 7-1200

BELLEVUE - SEATTLE - TACOMA

14548 S. E. 26th

THE ARBORETUM BULLETIN
Published by the
Arboretum Foundation
University of Washington Arboretum
Seattle, Washington 98105

BULK RATE
U. S. POSTAGE PAID
SEATTLE, WASHINGTON
Permit No. 413

POSTMASTER: If addressee has removed, please notify us of new address on Form 3547, postage for which is guaranteed.

BEAUTIFY YOUR GARDEN

TREES!
TREES!
TREES!

FLOWERING TREES DWARF FRUIT TREES
Rhododendrons
Insecticides Seeds Fertilizers
Power Mowers Garden Tools All Your Garden Needs
Gifts Housewares
Paints Hardware Pet Supplies

5 CORNERS NURSERIES
LANDSCAPING
AND HARDWARE
15822 FIRST AVENUE SOUTH

CHerry 2-2931

OPEN 7 DAYS A WEEK
FOR YOUR CONVENIENCE